UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,526	12/02/2004	Lutz Telljohann	P70008US0	3069

136 7590 05/13/2008

JACOBSON HOLMAN PLLC
400 SEVENTH STREET N.W.
SUITE 600
WASHINGTON, DC 20004

EXAMINER	
HINZE, LEO T	

ART UNIT	PAPER NUMBER
2854	

MAIL DATE	DELIVERY MODE
05/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/516,526	TELLJOHANN, LUTZ	
	Examiner	Art Unit	
	LEO T. HINZE	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-9,11-14 and 16-25* is/are rejected.

7)☒ Claim(s) *4, 10, and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 and 4-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 5-9, 12-14, 16-18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heller et al., US 2003/0084805 A1 (hereinafter Heller) in view of Switall, US 4,643,124 A (hereinafter Switall).

a. Regarding claim 1:

Heller teaches a process for supplying printing ink to and educing printing ink from a squeegee device of an inking system on a rotary printing press, that has a squeegee blade carrier (Fig. 2), provided with a longitudinally running trough, with squeegee blades that are adjustable on a form inking roller or on an anilox roller, which, together with the form inking roller (9, Fig. 1) and the trough (11, Fig. 1), provide an ink chamber (13, Fig. 2), and has lines and pumping devices (19, 21, Fig. 1) powered by motors (23, Fig. 1) for supplying and educing the ink to and from the ink chamber,

comprising presetting pump operational parameters of the motors such that a flow rate ratio between the first pumping device and the second pumping device is fixed (motors 19 and 21 are connected by a shaft, Fig. 1, so their flow rate ratios are fixed).

Heller does not teach diverting from an ink feed line that feeds the ink from an ink tank to the squeegee device a portion of the feed ink and/or diverting from an ink return line that removes the ink from the squeegee device a portion of the return ink, the ink feed being diverted through a bypass line that departs from the feed line and leads directly to the ink tank.

Switall teaches a process for supplying printing ink to and educing printing ink from an inking system on a rotary printing press, that has a longitudinally running trough (18), together with the form inking roller (14) and has lines (20, 38, 44) and pumping devices (46, 48) for supplying and educing the ink to and from the ink trough, comprising presetting pump operational parameters of the motors such that a flow rate ratio between the first pumping device and the second pumping device is fixed (col. 3, ll. 22-23), and further including diverting from an ink feed line that feeds the ink from an ink tank to the inking device a portion of the feed ink, , the ink feed being diverted through a bypass line that departs from the feed line and leads directly to the ink tank (ink fed through valve 42 and bypass line 44 to ink tank 16). This bypass helps prevent the inking device from overflowing (col. 4, ll. 29-31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller to include diverting from an ink feed line that feeds the ink from an ink tank to the squeegee device a portion of the feed ink, the ink

feed being diverted through a bypass line that departs from the feed line and leads directly to the ink tank as taught by Switall, because one having ordinary skill in the art would recognize that this would predictably prevent the inking device from overflowing.

b. Regarding claim 5, the combination of Heller and Switall teaches the process in accordance with claim 1 as discussed in the rejection of claim 1 above. The combination of Heller and Switall also teaches regulating flow with a through flow regulating valve provided in at least one of the feed line (Switall: 40).

c. Regarding claim 6, the combination of Heller and Switall teaches the process in accordance with claim 5 as discussed in the rejection of claim 5 above. The combination of Heller and Switall also teaches further comprising monitoring with a sensor (Heller: 63, Fig. 1) a quantity of the ink present in the squeegee device signaling a closed loop control circuit that regulates the through flow regulating valve such that the quantity of ink circulating in the squeegee device is always maintained within specified limits (Switall: prevents inking device from receiving too much ink to prevent overflow, col. 4, ll. 25-31).

d. Regarding claim 7, the combination of Heller and Switall teaches the process in accordance with claim 1 as discussed in the rejection of claim 1 above. The combination of Heller and Switall also teaches wherein the first and second pumping devices (Heller: 19, 21, Fig. 1; Switall 46, 48)) are each a chamber of a double diaphragm pump driven by a single shaft (Heller: ¶ 61; Switall: 50).

e. Regarding claim 8, the combination of Heller and Switall teaches the process in accordance with claim 7 as discussed in the rejection of claim 7 above. The

combination of Heller and Switall also teaches wherein a first chamber is an ink feed chamber and a second chamber is an ink return chamber (Heller: ¶ 61; Switall: col. 3, ll. 20-25).

f. Regarding claim 9, the combination of Heller and Switall teaches the process in accordance with claim 8 as discussed in the rejection of claim 8 above. The combination of Heller and Switall also teaches wherein the ink feed chamber has a volumetric capacity that is equal to a volumetric capacity of the ink return chamber (Switall: "the supply pump and the discharge pumps are equal in their capacity," col. 4, ll. 20-21).

g. Regarding claim 12, the combination of Heller and Switall teaches the process in accordance with claim 1 as discussed in the rejection of claim 1 above. The combination of Heller and Switall also teaches wherein the volumetric flow rate of the return ink that is removed from the squeegee device is greater than a volumetric flow rate of the feed ink on a discharge side of the pumping device that pumps the feed ink (Switall: the liquid discharge capacity exceeds the liquid supply capacity, col. 4, ll. 33-34).

h. Regarding claim 13, the combination of Heller and Switall teaches the process in accordance with claim 1 as discussed in the rejection of claim 1 above. The combination of Heller and Switall also teaches wherein the return ink that is removed from the inking device is enriched with air (Switall: the discharge pump 24b may be pumping air or a mixture of air and coating material, col. 4, ll. 35-40).

i. Regarding claim 14, the combination of Heller and Switall teaches the process in accordance with claim 1 as discussed in the rejection of claim 1 above. The combination of Heller and Switall also teaches wherein a volume of the feed ink that is diverted from the ink feed line is such that the flow rate ratio corresponds to a volume pumped by the pumping device (Switall: flow in conduit 40 "corresponds" to flow from chamber 24a).

j. Regarding claim 16, the combination of Heller and Switall teaches the process in accordance with claim 1 as discussed in the rejection of claim 1 above. The combination of Heller and Switall also teaches wherein the step of diverting the portion of the feed ink or the step of diverting the portion of the return ink is performed during the inking operation of the squeegee device (Switall: diversion performed during inking, col. 4, ll. 20-31).

k. Regarding claim 17:

Heller teaches a device that delivers ink to and from a closed squeegee device (Fig. 2) of a rotary printing unit inking system, comprising: a first and a second pumping device (19, 21, Fig. 1) in which a flow rate ratio between the first pumping device and the second pumping device is fixed (pumps 19 and 21 have a common shaft ¶ 61); and a second bypass line (57, Fig. 1) capable of controllably diverting from an ink return line that removes the ink from the squeegee a portion of the return ink

Heller does not teach a first bypass line capable of controllably diverting from an ink feed line that feeds the ink from the ink tank to the squeegee device a portion of the

feed ink, the first bypass line departing from the ink feed line and leading directly to the ink tank.

Switall teaches a process for supplying printing ink to and educing printing ink from an inking system on a rotary printing press, that has a longitudinally running trough (18), together with the form inking roller (14) and has lines (20, 38, 44) and pumping devices (46, 48) for supplying and educing the ink to and from the ink trough, comprising presetting pump operational parameters of the motors such that a flow rate ratio between the first pumping device and the second pumping device is fixed (col. 3, ll. 22-23), and further including diverting from an ink feed line that feeds the ink from an ink tank to the inking device a portion of the feed ink, , the ink feed being diverted through a bypass line that departs from the feed line and leads directly to the ink tank (ink fed through valve 42 and bypass line 44 to ink tank 16). This bypass helps prevent the inking device from overflowing (col. 4, ll. 29-31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller to include a first bypass line capable of controllably diverting from an ink feed line that feeds the ink from the ink tank to the squeegee device a portion of the feed ink, the first bypass line departing from the ink feed line and leading directly to the ink tank as taught by Switall, because one having ordinary skill in the art would recognize that this would predictably prevent the inking device from overflowing.

l. Regarding claim 18, the combination of Heller and Switall teaches the process in accordance with claim 17 as discussed in the rejection of claim 17 above. The

combination of Heller and Switall also teaches wherein the first bypass line departs from the ink feed line on a discharge side of the first pumping device (Switall: line 44 branches from discharge side of 24a) and communicates the diverted feed ink to the ink tank that is in communication through an ink suction line with a suction side of the first pumping device (ink diverted to tank 16 which is in communication with 24a through line 32).

m. Regarding claim 20, the combination of Heller and Switall teaches the process in accordance with claim 17 as discussed in the rejection of claim 17 above. The combination of Heller and Switall also teaches wherein the first pumping device is an ink feed chamber and the second pumping device is an ink return chamber of a double diaphragm pump (Heller: ¶ 61; Switall, 24a, 24b).

n. Regarding claim 21, the combination of Heller and Switall teaches the process in accordance with claim 20 as discussed in the rejection of claim 20 above. The combination of Heller and Switall also teaches wherein the ink feed chamber has a volumetric capacity that is equal to or greater than a volumetric capacity of the ink return chamber (Switall: "the supply pump and the discharge pumps are equal in their capacity," col. 4, ll. 20-21).

o. Regarding claim 22, the combination of Heller and Switall teaches the process in accordance with claim 17 as discussed in the rejection of claim 17 above. The combination of Heller and Switall also teaches wherein a volume of the feed ink that may be diverted from the ink feed line is such that the flow rate ratio may correspond to

a volume pumped by the pumping devices (Switall: flow in conduit 40 "corresponds" to flow from chamber 24a).

4. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heller in view of Switall as applied to claim 8 above, and further in view of Shields, US 7,165,494 B2 (hereinafter Shields).

The combination of Heller and Switall teaches the process in accordance with claim 8 as discussed in the rejection of claim 8 above.

The combination of Heller and Switall does not teach wherein the ink return chamber has a volumetric capacity that is greater than a volumetric capacity of the ink feed chamber.

Shields teaches an inking device with supply and return pumps, wherein the ink return chamber has a volumetric capacity that is greater than a volumetric capacity of the ink feed chamber to prevent overflow and over-pressurization of the ink feeding device (col. 7, ll. 44-48).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller wherein the ink return chamber has a volumetric capacity that is greater than a volumetric capacity of the ink feed chamber as taught by Shields, because this would predictably prevent overflow and over-pressurization of the ink feeding device.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heller in view of Switall as applied to claim 17 above, and further in view of Achelpohl, US 5,816,163 B2 (hereinafter Achelpohl).

The combination of Heller and Switall teaches the process in accordance with claim 8 as discussed in the rejection of claim 8 above.

The combination of Heller and Switall does not teach wherein the second bypass line departs from the return line on a discharge side of the second pumping device and communicates the diverted return ink to the ink feed line at a location between the first bypass line and the squeegee device.

Achelpohl teaches wherein a second bypass line departs from the return line on a discharge side of the second pumping device (bypass valve 18 on discharge side of pump 17, Fig. 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller wherein a second bypass line departs from the return line on a discharge side of the second pumping device as taught by Achelpohl, because such a change would predictably provide a system that re-routes printing ink to the feed side of the inking device.

It has been held that mere rearrangement of parts is not sufficient to patentably distinguish an invention over the prior art. See MPEP § (VI)(C).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller wherein the diverted return ink to the ink feed line joins at a location between the first bypass line and the squeegee device, because one having ordinary skill in the art would know that this would predictably provide return ink to the ink feeding device without causing extra wear on the supply pump that would be caused by having to pump the bypass ink from the return pump.

6. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heller in view of Switall and Achelpohl.

a. Regarding claim 23:

Heller teaches a device that delivers ink to and from a closed squeegee device of a rotary printing unit inking system, comprising: a double diaphragm pump including an ink feed chamber and an ink return chamber in which a flow rate ration between the ink feed chamber and the ink return chamber is fixed (¶ 61, pumps 19 and 21 share a common shaft, Fig. 1); a second bypass line capable of controllably divert from an ink return line that removes the ink from the squeegee device a portion of the return ink (line 47, Fig. 1).

Heller does not teach the first bypass line departing from the ink feed line on a discharge side of the ink feed chamber and communicating the diverted feed ink to an ink tank that is in communication through an ink suction line with a suction side of the ink feed chamber, and the second bypass line departing from the return line on a discharge side of the ink return chamber and communication the diverted return ink to the ink feed line at a location between the first bypass line an the squeegee device.

Switall teaches a process for supplying printing ink to and educing printing ink from an inking system on a rotary printing press, that has a longitudinally running trough (18), together with the form inking roller (14) and has lines (20, 38, 44) and pumping devices (46, 48) for supplying and educing the ink to and from the ink trough, comprising presetting pump operational parameters of the motors such that a flow rate ratio between the first pumping device and the second pumping device is fixed (col. 3, ll.

22-23), and further including diverting from an ink feed line that feeds the ink from an ink tank to the inking device a portion of the feed ink, the ink feed being diverted through a bypass line that departs from the feed line and leads directly to the ink tank (ink fed through valve 42 and bypass line 44 to ink tank 16). This bypass helps prevent the inking device from overflowing (col. 4, ll. 29-31).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller to include a first bypass line capable of controllably diverting from an ink feed line that feeds the ink from the ink tank to the squeegee device a portion of the feed ink, the first bypass line departing from the ink feed line and leading directly to the ink tank as taught by Switall, because one having ordinary skill in the art would recognize that this would predictably prevent the inking device from overflowing.

Achelpohl teaches wherein a second bypass line departs from the return line on a discharge side of the second pumping device (bypass valve 18 on discharge side of pump 17, Fig. 1).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller wherein a second bypass line departs from the return line on a discharge side of the second pumping device as taught by Achelpohl, because such a change would predictably provide a system that re-routes printing ink to the feed side of the inking device.

It has been held that mere rearrangement of parts is not sufficient to patentably distinguish an invention over the prior art. See MPEP § (VI)(C).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Heller wherein the diverted return ink to the ink feed line joins at a location between the first bypass line and the squeegee device, because one having ordinary skill in the art would know that this would predictably provide return ink to the ink feeding device without causing extra wear on the supply pump that would be caused by having to pump the bypass ink from the return pump.

b. Regarding claim 24, the combination of Heller, Switall, and Achelpohl teaches the process in accordance with claim 23 as discussed in the rejection of claim 23 above. The combination of Heller, Switall, and Achelpohl also teaches a through flow regulating valve provided in at least one of the feed line (Switall: 40).

c. Regarding claim 25, the combination of Heller, Switall, and Achelpohl teaches the process in accordance with claim 23 as discussed in the rejection of claim 23 above. The combination of Heller, Switall, and Achelpohl also teaches monitoring with a sensor (Heller: 63, Fig. 1) a quantity of the ink present in the squeegee device signaling a closed loop control circuit that regulates the through flow regulating valve such that the quantity of ink circulating in the squeegee device is always maintained within specified limits (Switall: prevents inking device from receiving too much ink to prevent overflow, col. 4, ll. 25-31).

Allowable Subject Matter

7. Claims 4, 10, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

a. Regarding claim 4, the prior art of record does not teach or render obvious a process for supplying printing ink having supply and return pumps, wherein return ink is diverted through a bypass line that departs from the return line and connects to the feed line of the squeegee device.

b. Regarding claim 10, the prior art of record does not teach or render obvious a process for supplying printing ink having supply and return pumps, wherein the ink feed pump has a volumetric capacity that is greater than the ink return pump.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo T. Hinze
Patent Examiner
AU 2854
08 May 2008

/Daniel J. Colilla/
Primary Examiner
Art Unit 2854